



centre for alcohol  
policy research



Foundation for Alcohol  
Research & Education

A large, artistic splash of golden-brown liquid, likely alcohol, is the central visual element. It originates from the top left and curves downwards and to the right, ending in a large, solid red semi-circular shape that occupies the bottom half of the page. The splash is composed of many small droplets and larger, more complex liquid structures, creating a sense of motion and energy.

# What do Australians drink?

Analyses by demographic and social characteristics

Dr Sarah Callinan

Jason Ferris

Centre for Alcohol Policy Research

September 2012



## About the Foundation for Alcohol Research and Education

The Foundation for Alcohol Research and Education (FARE) is an independent charitable organisation working to prevent the harmful use of alcohol in Australia. Our mission is to help Australia change the way it drinks by:

- helping communities to prevent and reduce alcohol-related harms;
- building the case for alcohol policy reform; and
- engaging Australians in conversations about our drinking culture.

Over the last ten years FARE has have invested more than \$115 million, helped 750 organisations and funded over 1,400 projects addressing the harms caused by alcohol misuse.

FARE is guided by the World Health Organization's Global Strategy to Reduce the Harmful Use of Alcohol for addressing alcohol-related harms through population-based strategies, problem-directed policies, and direct interventions.

## About the Centre for Alcohol Policy Research

The Centre for Alcohol Policy Research (CAPR) is an innovative, world-renowned research facility at the forefront of informed alcohol policy development. A joint undertaking of the FARE, the Victorian Government, and the University of Melbourne, CAPR is unique in Australia's research landscape in that its sole focus is on building the evidence-base on alcohol issues.

Based in Melbourne, CAPR is led by Professor Robin Room, who has over 40 years' experience in investigating alcohol and other drugs issues, is a frequent adviser to the World Health Organization, and a recipient of many research awards, including most recently the Prime Minister's award for Excellence in Drug and Alcohol Endeavours.

## Acknowledgements

The authors would like to thank Professor Robin Room for his assistance in preparing this report.



## Contents

Executive Summary .....	4
Introduction.....	6
Method.....	8
Survey and sample .....	8
Measures .....	8
Analysis.....	8
Results .....	9
Gender.....	9
Age.....	10
Indigenous People .....	12
Socio-economic index for areas .....	13
Household income.....	14
Alcohol Consumption .....	16
Frequency of drinking.....	16
Total alcohol consumed .....	17
Change of preference .....	20
Summary .....	21
References.....	22



## Executive Summary

This report examines demographic correlates and alcohol consumption patterns associated with favourite drink choices. 20,412 respondents to the 2010 National Drug Strategy Household Survey who had consumed alcohol in the past twelve months reported on their main or favourite drink as well as any supplemental drink types they regularly consumed. They also provided a range of information on alcohol consumption and demographics.


The drink preference analysis from the 2010 NDSHS survey showed that overall, beer is the drink of choice for males, bottled wine for females and older drinkers, and RTDs for younger drinkers. There tended to be opposite trends for bottled wine and cask wine when compared on many of the demographic correlates: bottled wine was positively associated with SEIFA and household income, with the inverse true of cask wine. Bottled spirits tended to have a negative relationship with SEIFA and income when only the main drink was analysed. However, once supplementary drinks were included, this trend was no longer evident.

Beer and wine were more popular for those drinkers who drank once or twice a week or more, while bottled spirits and RTDs were more popular in those who drank once a week or less often. People who stated that regular or home brew beer was their main drink consumed the most alcohol over the year. However, it should be noted that the strength of individual home brew beers cannot be ascertained from this analysis, and therefore the total volume should be interpreted with caution.

Once supplementary drinks were included in the analysis, the average total volume of alcohol consumed by beer drinkers dropped and the average for bottled wine drinkers rose. Furthermore, the total volume of alcohol consumed by cask wine drinkers rose dramatically when those who identified it as a supplementary usual drink were included, indicating that those who drank it as a second or third drink drank heavily throughout the year. The pattern of total alcohol consumption for each drink type identified was consistent for males and females, with males drinking more as would be expected. However, this is not a simple negative relationship between the strength of drinks and age, as wine and fortified wine increase in popularity as the sample ages.

The most striking finding to come from this study is the amount of alcohol and the frequency of drinking in those who drink home-brew beer and cask wine. Over 30% of cask wine and home-brew drinkers drank daily and on average they drank 2.65 and 2.25 drinks per day when supplemental drinkers were included. Therefore, on average, people who are drinking these drinks are frequently drinking at a level higher than the recommended guideline of two standard drinks a day ([National Health and Medical Research Council, 2009](#)).

One interpretation of the differences between the analyses addressing favourite drink and those addressing favourite and supplemental drinks is that respondents may select a favourite drink that they feel matches their identity or picture of themselves. An example of this can be seen in the analysis on household income; those with high household income did not identify as spirit drinkers,



but did drink spirits as much as the rest of the sample when supplemental drinks are included. Therefore, it is important to note that heavy drinking occurs with all types of drinks. While there were large differences in the amount of alcohol consumed by drink type by favourite drink only, these differences were greatly reduced when supplemental drinks were included.

One of the findings to come from this report is that the relationship between some of these drink choices and demographic variables is not linear. For instance, cask wine is more popular in younger and older drinkers while spirits and RTDs are less popular with those on very low or high incomes. In the case of cask wine this could possibly be explained by the younger and older respondents having less money to spend on bottled wines, supported by the finding that the popularity of cask wines decreases with increasing income. The finding on spirits and RTDs is more difficult to interpret, although it may in part be a reflection of the cost of these drinks combined with decreasing popularity as income increases. Ultimately, one of the main messages to take from this is that it is crucial to look beyond the linear relationships between drink choice and demographic variables, or important information may be lost.

One of the primary policy implications to come from this is that people who select cask wine and home-brew beer as their favourite or supplemental drink are drinking more often and more on average than those who select other drink types. Furthermore, more careful differentiation between alcohol preferences need to be made. It is common in research such as this to split drink types into the categories of beer, wine and spirits; however, the different relationships between cask and bottled wine with demographic variables, as well as different types of beer and spirits and RTDs means that vital information could be lost when analyses are conducted in this manner. Furthermore, it is not enough to look at favourite drinks only as the findings on spirits and income attest. By differentiating carefully between these types of drinks, more information can be ascertained on how drink choice is affecting drinking behaviours.

Given the concerns about the marketing of some of these drinks to young people ([Harris et al., 2005](#)), the rising popularity of drinks such as cider may be an area of research that deserves more attention in the future. The number of types of drinks that young people are consuming suggests that they are perhaps still looking for the type of alcohol they like the most, as compared to consistently choosing a certain drink type.




## Introduction

While overall alcohol consumption is a good predictor of many drinking behaviours, there is much to be learnt from the type of alcohol that Australians consume. A wide range of factors such as income, productivity, risk taking and health can be linked to beverage choice ([Srivastava & Zhao, 2010](#)). There are specific demographics that go with different drinks. For instance, wine drinkers tend to be older highly-educated females while beer drinkers tend to be younger and male ([Klatsky, Armstrong, & Kipp, 1990](#)). Drinkers also believe that there are different outcomes stemming from drink choice, for instance American drinkers believe that wine has more positive effects, such as tension reduction, and less negative effects, such as cognitive and behavioural impairment, than beer and spirits ([Pedersen, Neighbours, & Larimer, 2010](#)).

Another example of the link between behaviour and drink choice can be found in the US, where beer is the most popular drink among binge drinkers, and beer drinkers are the most likely to drink drive and experience or cause alcohol-related harm ([Greenfield & Rogers, 1999](#); [Naimi, Brewer, Miller, Okoro, & Mehrotra, 2007](#)). Perceived differences such as these have resulted in differing taxation on types of alcohol. Currently in Australia there are different tax rates based on either the alcohol strength for beer and spirits or on cost of the product in the case of wine. However, many members of the public health sector including health economists have been advocating for a volumetric tax system for alcoholic beverages that is based on the amount of alcohol in the product only ([Doran & Digiusto, 2011](#); [Skov et al., 2011](#); [Srivastava & Zhao, 2010](#)). The assumed importance of drink types in alcohol studies either stems from the belief that those who choose each drink are inherently different and thus have different levels of risk, or alternatively that the consumption of these different types of alcohol result in different outcomes. Differences between people and their beverage choices can often be explained by their pre-existing behaviours. For instance, several U.S studies have demonstrated that wine drinkers have higher education levels and eat more fruit and vegetables, smoke less and have a healthier diet overall than those who drink beer, spirits or nothing at all ([Barefoot et al., 2002](#); [McCann et al., 2003](#)). There is a movement from spirits to wine in women aged 30-50 that is thought to coincide with an increased focus on health ([Klatsky et al., 1990](#)). So although wine consumption has been linked to good health ([Theobald, Johansson, & Engfeldt, 2003](#)), it is possible that wine has the same impact on health as spirits and beer but that the damage is less noticeable as it is occurring to drinkers who are healthier to begin with.

A point of interest in studies of alcoholic beverage choice is what vulnerable groups are drinking and if any drinks are targeted towards these groups. There is particular concern surrounding young people binge drinking Ready-to-Drink spirits (RTD) ([Ramful & Zhao, 2008](#)) and how these drinks may be targeted to young people ([Harris, Edwards, & Smith, 2005](#)). While RTDs used to be seen as expensive drinks targeted towards the female market during the early 2000s this is no longer the case, with a rising subgroup of high alcohol content RTDs targeted towards young men ([Jones & Barrie, 2011](#)).



Owing to the significant concern about binge drinking of RTDs in Australia, the tax rate on RTDs was increased to the same rate as that applied to spirits in 2008 via the introduction of the “alcopops” tax. Following the introduction of this tax, RTD consumption decreased by 26.1%, however consumption of bottled spirits increased by 11.2% ([Chikritzhs et al., 2009](#)). This partial substitution of bottled spirits for RTDs in response to a similar tax increase was also found in Germany ([Muller, Piontek, Pabst, Baumeister, & Kraus, 2010](#)). It should be noted however that there was an overall reduction in alcohol consumption of 2.7% in the wake of the introduction of the Australian alcopops tax ([Chikritzhs et al., 2009](#)). Overall, the introduction of the ‘alcopops tax’ on RTDs in Australia has not changed the fact that these drinks are still within the means of most young people ([Jones & Barrie, 2011](#)). But it is possible that it may have somewhat reduced the amount of alcopops young people can afford to consume in one session.

There is however some concern that the alcopops tax has led to the promotion of some drinks that may appeal to the traditional RTD market but are taxed more favourably. For instance, cider is a fruit based product subject to a value based tax (the Wine Equalisation Tax), rather than an alcohol volume based tax. This was recently recognised in the UK where legislation was passed in 2010 that put forward a stricter definition of cider to prevent the use of such a favourable tax loophole ("[Alcoholic Liquor Duties \(Definition of Cider\) Order,](#)" 2010). Cider sales in Australia have been steadily rising throughout 2011, and are further expected to rise over the next twelve months by 21% ([Euromonitor International, 2011](#)). The most recent National Drug Strategy Household Survey (NDSHS) in 2010 is the first since the introduction of the alcopops tax, providing an opportunity to investigate the effect of the alcopop tax on the consumption of these beverage types.

This study will use the 2010 NDSHS to gain current information on the demographics of those who identify with different types of alcoholic beverage. This information is based on a question in the 2010 NDSHS that asks participants what their ‘main’ drink is and what other types of alcohol they usually drink. Furthermore, they were also asked to note if they had changed their main drink in the previous 12 months, and if so what they had changed from. This allows examination of current favourite drinks and also of the movement between favourite drink choices over a twelve month period.



## Method

### Survey and sample

Data collection for the NDSHS 2010 survey was carried out across Australia between April and September 2010. Surveys were collected using the drop-and-collect method in selected households. In total 26,645 respondents were asked a wide range of questions on alcohol, tobacco and illicit drug use. The 21,515 participants that had consumed alcohol in the previous 12 months were asked to identify their main drinks and 20,412 responded; these participants are the focus of the current report. Details on the data collection process and a copy of the survey can be found in the 2010 NDSHS report ([Australian Institute of Health and Welfare, 2011](#)).

### Measures

Demographic information including age, annual household income and Indigenous status was collected from all respondents and Socio-Economic Indexes For Areas (SEIFA), a measure of neighbourhood advantage, was coded from their reported postcode. Those who consumed alcohol in the past year were asked to identify “*what type of alcohol is your main drink, the one you drink most often*”, as well as “*what other types of alcohol do you usually drink*”. This allows two sets of analyses, one on the main alcohol beverage of choice and one on both the main and supplementary beverages. This is important because many of the people surveyed have more than one favourite or preferred drink.

Respondents were also asked to outline how regularly they consume alcohol and the pattern of their alcohol consumption over the past 12 months; from this the total volume of alcohol consumed could be ascertained. Finally, participants were also asked if their main drink had changed over the past 12 months, and if so what drink had been their previous main drink. All percentages are of those who responded to the questions on their favourite drink; therefore non-drinkers or people who had abstained for the previous twelve months were not included in the following analyses.

### Analysis

Analysis was undertaken with Stata (version 12). All reported results are weighted. Weights were applied to the data to better represent the Australian general population by taking into account the probability of being interviewed. The weights supplied by AIHW have been scaled to sum to the unweighted number of respondents interviewed.

## Results

Analyses were conducted on both the favourite drinks as well as the favourite and supplementary drinks listed by respondents. This secondary analysis is only presented when the addition of supplementary drinks leads to different results than those on the favourite drinks only.

### Gender

The percentage of males and females among those that selected each drink as their main drink is shown in Table 1. Males are more likely to select beer as their favourite drink, with at least three quarters of those who selected any type of beer as their favourite drink being male. All other beverages, and especially bottled wine, are more likely to be selected by females as their favourite drink. Just over 70% of all people who select bottled wine as their favourite drink are female as are around 65% of those who select fortified wine as their favourite drink. However, there were only slightly more females who selected cider and spirits as their favourite drinks (40.4% and 59.7% respectively) compared to males. These trends did not change when both main and supplementary drink preferences are taken into account. In interpreting these findings, it is also important to consider that men selected on average 2.56 favourite drinks (95% CI 2.53 and 2.60), while women selected on average 2.24 favourite drinks (95% CI 2.22 and 2.27).

**Table 1: Percentage of those who identified each drink as their favourite by gender**

	Male (%)	Female (%)
Regular Beer	83.00	17.00
Mid-Strength Beer	82.80	17.20
Light Beer	75.20	24.80
Home-Brew Beer	80.20	19.80
Cider	38.10	61.90
Cask Wine	36.10	63.90
Bottled Wine	26.10	73.90
Fortified Wine	36.30	63.80
Spirits	40.40	59.70
Premix	32.40	67.60
Other	22.90	77.10

## Age

Table 2 shows favourite drink selections by age group. Spirits and RTDs are clearly the preferred drink among the youngest age group with the majority of 14 to 19 year olds indicating that bottled spirits or RTDs are their favourite drink (66.2%). In all other age groups beer and wine are the most popular drinks and together comprise the majority of favourite drinks. Regular strength beer is the most popular drink among 20 to 29 year olds, closely followed by bottled wine, spirits and RTDs. By 30 to 39 years of age, bottled wine has overtaken regular beer as the most popular drink and continues to increase in popularity with age.

Regular beer decreases in popularity with age after peaking in popularity among 20 to 29 year olds. RTDs dramatically decrease in popularity with age after peaking at 14 to 19 years of age. Spirits also generally decrease in popularity after 14 to 19 years, with the exception of a slight increase in popularity from 60 years to 70 years and older. Cider consumption also tends to decrease in popularity with age. In contrast, light strength beer and fortified wine increase in popularity with age. Cask wine follows a u-shaped trend where it is most popular among the youngest and oldest age groups and least popular in the middle age groups. Preferences for mid strength and home brew beer show no clear age-related trend.

**Table 2: Favourite drink disaggregated by age group**

	14-19 (%)	20-29 (%)	30-39 (%)	40-49 (%)	50-59 (%)	60-69 (%)	70+ (%)
Regular Beer	18.2	27.1	25.8	21.0	17.7	13.8	8.2
Mid-Strength Beer	3.2	5.0	7.3	7.8	7.8	6.8	6.2
Light Beer	1.2	1.7	2.7	5.4	7.5	9.5	13.4
Home Brew	0.7	0.3	0.5	0.6	0.4	0.9	0.9
<b>Beer Total</b>	<b>23.3</b>	<b>34.1</b>	<b>36.3</b>	<b>34.8</b>	<b>33.4</b>	<b>31</b>	<b>28.7</b>
Cider	1.4	1.3	0.8	0.6	0.4	0.4	0.1
Cask Wine	1.4	0.9	1.6	3.2	5.3	7.9	11.7
Bottled Wine	6.3	22.8	34.0	37.6	40.7	42.9	36.6
<b>Wine Total</b>	<b>7.7</b>	<b>23.7</b>	<b>35.6</b>	<b>40.8</b>	<b>46</b>	<b>50.8</b>	<b>48.3</b>
Fortified Wine	0.0	0.4	0.8	1.0	1.9	3.1	6.9
Bottled Spirits	21.7	20.5	13.9	12.9	12.1	10.9	13.3
RTD	44.5	19.1	11.7	9.3	5.4	3.2	1.8
Other	1.2	0.8	0.8	0.8	0.8	0.7	1.1
Weighted N	957.8	3366.7	4025.9	3507.4	3187.9	2705.2	2633.2

Including supplemental drinks in the analysis resulted in very similar patterns, except for differences that could be explained by the average number of drinks selected per age group. As shown in Figure 1, younger age groups are more likely to have multiple favourite drinks.



There is an age-related trend in the number of favourite drinks selected with persons aged 14 to 29 years selecting the largest number of favourite drinks (3.03) on average, and persons age 70 years or older selecting an average of 1.83 favourite drinks. Therefore when interpreting the results in Table 2 it is important to remember that younger respondents have more other drinks that they are usually drinking when compared to the older respondents, making the popularity of wine in older respondents more striking. This is because not only do 50% of the older respondents drink wine, but they also on average have fewer other drink types that they are consuming in conjunction with wine.

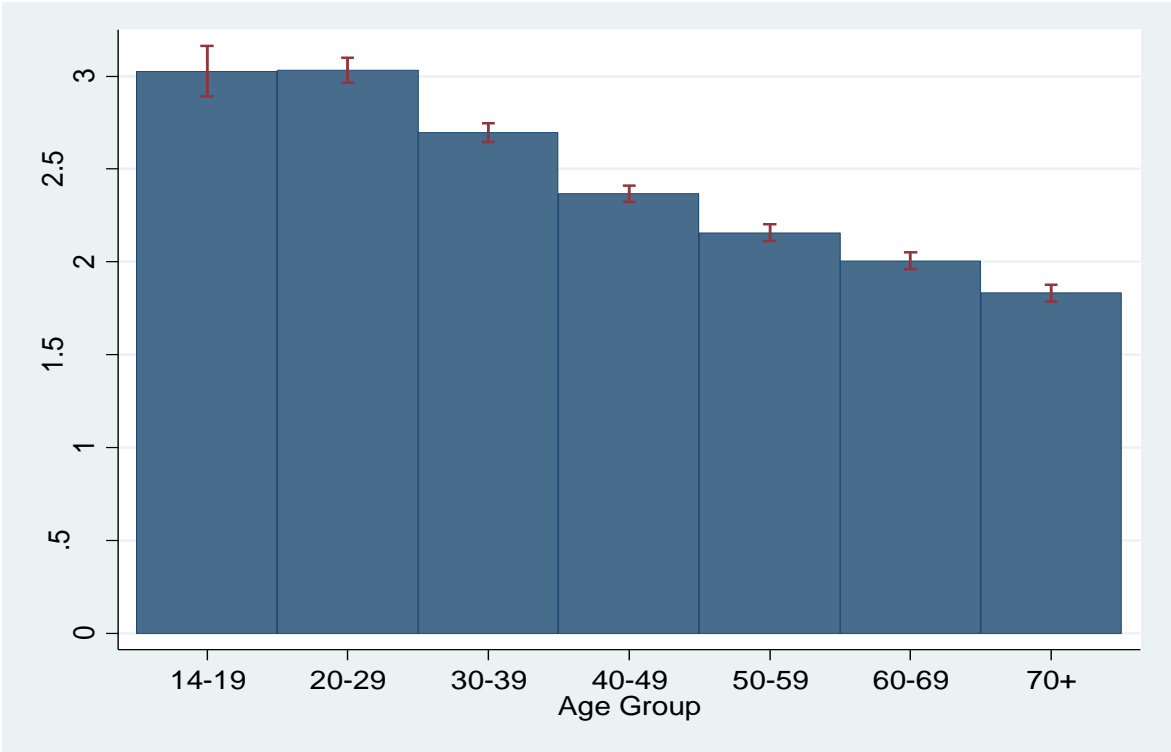


Figure 1: Mean and 95% confidence intervals for the number of drinks selected by each age group. Confidence intervals are also shown in red, indicating the range that the real mean or average will fall between, with 95% confidence.

## Indigenous People

As can be seen in Table 3, there are few differences in drink choice between Indigenous and non-Indigenous respondents. The three notable exceptions to this are the differences between these groups in preferences for bottled wine, RTDs and cask wine. Indigenous respondents are more than three times more likely to drink RTDs than non-Indigenous populations, three times less likely to drink bottled wine, and two times less likely to drink cask wine. These trends remained consistent with supplementary drinks included in the analyses. Please note that Indigenous respondents are under-represented in the 2010 NDSHS survey, making up 1.7% of the unweighted sample but 2.4% of the population. Because of this, these results need to be interpreted with caution ([Australian Institute of Health and Welfare, 2011](#)). Analyses were also conducted on favourite and supplemental drinks however no real differences in trends from the favourite only analysis were found. There was no significant difference in the number of favourite drinks of Indigenous (on average 2.3) and non-Indigenous respondents (on average 2.4).

**Table 3: Favourite drink selections by Indigeneity**

	Indigenous (%)	Not Indigenous (%)
Regular Beer	21.9	19.6
Mid-Strength Beer	4.4	6.6
Light-Beer	5.6	5.9
Home-Brew Beer	0.9	0.6
<b>Beer Total</b>	<b>32.8</b>	<b>32.7</b>
Cider	0.9	0.7
Cask Wine	2.2	4.5
Bottled Wine	10.3	34.7
<b>Wine Total</b>	<b>12.5</b>	<b>39.2</b>
Fortified Wine	0.0	2.0
Spirits	17.8	14.3
RTD	35.1	10.1
Other	0.9	0.9
N	286.5	19526.6

## Socio-economic index for areas

Table 4 presents favourite drink choices disaggregated by Socio-Economic Index for Areas (SEIFA) quintiles. SEIFA is a measure of neighbourhood affluence based on postcode. Bottled wine was consistently the most popular drink in all SEIFA groups and this steadily increased with increasing economic advantage (from 22% to 48.9%). In contrast, cask wine decreased in popularity as neighbourhood affluence rose. Regular beer was the second most popular drink in all SEIFA groups and its popularity appeared to be unaffected by economic advantage.

Spirits were the third most popular drink in all SEIFA groups and their popularity decreased with increasing economic advantage. The popularity of RTDs, fortified and cask wine also decreased with increasing economic advantage. The popularity of mid and light beers also consistently decreased with increasing economic advantage. Home-brew was similarly popular in the bottom 4 quintiles but dropped in popularity in the most advantaged quintile. The popularity of cider did not differ significantly as a function of economic advantage. Once supplemental drinks were added in, the figures were not notably different to those of favourite drink only. In addition, there were no significant differences in the number of favourite drinks as a function of SEIFA (on average these ranged from 2.2 to 2.4 favourite drinks).

**Table 4: Favourite drink selections by SEIFA quintile**

	1 (least advantaged)	2	3	4	5 (most advantaged)
Regular Beer	19.0	18.9	20.7	20.0	19.7
Mid-Strength Beer	8.3	8.6	7.5	6.1	3.6
Light-Beer	7.3	7.1	6.8	4.9	4.2
Home-Brew Beer	0.7	0.7	0.7	0.6	0.3
<b>Beer Subtotal</b>	<b>35.3</b>	<b>35.3</b>	<b>35.7</b>	<b>31.6</b>	<b>27.8</b>
Cider	0.5	0.6	0.7	0.7	0.7
Cask Wine	5.5	4.9	4.8	4.1	3.3
Bottled Wine	22.2	25.3	31.3	38.5	48.9
<b>Wine Subtotal</b>	<b>27.7</b>	<b>30.2</b>	<b>36.1</b>	<b>42.6</b>	<b>52.2</b>
Fortified Wine	2.5	2.2	2.5	1.8	1.2
Spirits	17.4	16.8	14.3	13.4	11.1
RTD	15.8	13.9	9.9	9.4	6.0
Other	0.8	1.1	0.8	0.7	1.0
N	3637.6	3740.1	4083.0	4505.2	4446.0



## Household income

The percentage of people who have identified each drink as their main drink by household income is shown in Table 5 with the supplementary drinks added in Table 6. The relationship between income and favourite drink was very similar to the relationship between SEIFA and favourite drink. As was the case for the analyses disaggregated by SEIFA, bottled wine was consistently the most popular drink in all household income bands, followed by regular strength beer, spirits and RTDs, while cask wine, fortified wine, and cider were the least popular beverages in each income band.

The popularity of bottled wine increased as a function of household income, as did regular strength beer. Preferences for cask wine, bottled spirits, fortified wine, light beer and home brew decreased as a function of household income. There were no differences in the preference for cider as a function of household income. A u-shaped relationship between preference for RTD and household income and mid-strength beer and household income was observed. That is, RTDs and mid-strength beer were most popular in the middle range of household income, with decreasing popularity in the lowest and highest earning households.

Overall, these trends remained consistent when supplementary drinks were included in the analysis, except that the rate of bottled spirits drinking increased, rather than decreased, as a function of household income. This indicates that spirits may be a popular secondary drink in higher income groups. Higher income respondents also identified more drink types as commonly consumed, as shown in Figure 2.

**Table 5: Percentage by household income of those selecting each type of drink as their main drink**

	20799	\$20,800 to \$31,999	\$31,200 to \$41,599	\$41,600 to \$51,999	\$52,000 to \$67,599	\$67,600 to \$83,199	\$83,200 to \$103,999	\$104,000 to \$145,599	\$145,600+
Regular Beer	13.6	15.1	17.9	18.8	21.7	20.9	23.3	22.7	25.1
Mid-Strength Beer	6.6	7.4	6.5	6	8.1	7.3	8.2	6.8	5.2
Light-Beer	9.5	9.5	6.7	5.7	6.1	5	5.2	3.7	3.1
Home-Brew Beer	1	0.5	0.7	0.9	0.6	0.5	0.4	0.5	0.3
<b>Beer Total</b>	<b>30.7</b>	<b>32.5</b>	<b>31.8</b>	<b>31.4</b>	<b>36.5</b>	<b>33.7</b>	<b>37.1</b>	<b>33.7</b>	<b>33.7</b>
Cider	0.7	0.2	0.5	0.2	0.4	1	0.8	0.7	1
Cask Wine	9.6	8.5	6.1	5.4	4.1	4	2.5	2.4	1.5
Bottled Wine	29.1	29.1	31.8	32	31.1	34.5	33.6	41.4	46.9
<b>Wine Total</b>	<b>38.7</b>	<b>37.6</b>	<b>37.9</b>	<b>37.4</b>	<b>35.2</b>	<b>38.5</b>	<b>36.1</b>	<b>43.8</b>	<b>48.4</b>
Fortified Wine	5	4.1	3.1	1.4	1.1	0.8	1.1	0.8	0.7
Spirits	14.2	15.3	14.4	17.4	14.9	14.2	14.6	12.4	11
RTD	9.6	9.2	11.3	11.4	11.3	11.2	9.5	7.9	4.9
Other	1.2	1.2	1	0.8	0.6	0.7	0.9	0.7	0.4
N	1600	1273.6	1202.8	1313.1	1644.9	1764.7	2029.4	2349	2189.8

**Table 6: Percentage by household income of those selecting each type of drink as their main or supplemental drink**

	20,799	\$20,800 to \$31,999	\$31,200 to \$41,599	\$41,600 to \$51,999	\$52,000 to 67,599	\$67,600 to \$83,199	\$83,200 to \$103,99	\$104,000 to \$145,599	\$145,600 to \$145,599
Regular Beer	15.4	20.3	24.4	29.9	33.7	33.9	39	60.4	54.9
Mid-Strength Beer	8.3	11.8	12.2	14.2	17.1	15.1	18.6	18.1	17.5
Light-Beer	11.9	14.3	13	12.4	14.7	13.7	14.7	14.5	14.5
Home-Brew Beer	2.4	2.4	2.3	3	3.1	3.1	3.8	3	3.1
<b>Beer Total</b>	<b>38</b>	<b>48.8</b>	<b>51.9</b>	<b>59.5</b>	<b>68.6</b>	<b>65.8</b>	<b>76.1</b>	<b>96</b>	<b>90</b>
Cider	2	2.5	3.6	5.6	5.1	5.2	5.7	6	5.7
Cask Wine	19.4	19.9	14.7	15	11.8	11.4	10	9.9	7.7
Bottled Wine	46.6	51.7	53.8	57.5	58.3	61.3	62.1	68.7	76.9
<b>Wine Total</b>	<b>66</b>	<b>71.6</b>	<b>68.5</b>	<b>72.5</b>	<b>70.1</b>	<b>72.7</b>	<b>72.1</b>	<b>78.6</b>	<b>84.6</b>
Fortified Wine	15.4	17.1	12.8	12	12.4	14.7	13.3	13.4	13.3
Spirits	34.7	40.3	42.7	47.1	48.1	50.5	51.4	51.2	49.9
RTD	20.8	23.9	31.5	31.5	32.2	34.6	34.2	30.9	24.3
Other	2.5	3.2	3.5	3.1	2.1	2.4	2.6	2.2	2
N	1600	1273.6	1202.8	1313.1	1644.9	1764.7	2029.4	2349	2189.8

Please note that respondents can select more than one drink for this item so column percentages will not total 100%

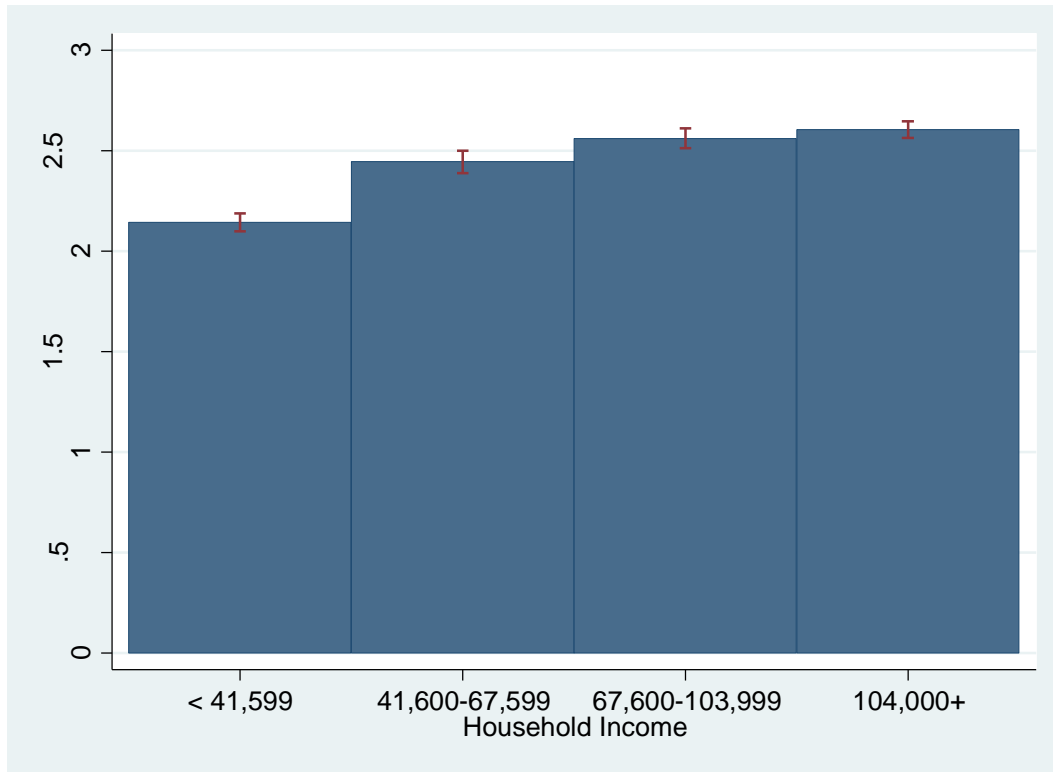


Figure 2: Mean and 95% confidence intervals for the number of drinks selected by household income.

## Alcohol Consumption

### Frequency of drinking

Table 7 shows the percentage of people who identified each drink as their main drink as a function of drinking frequency. Regular beer, home-brew beer and cask wine drinkers were more likely to drink at least once a week (75.4%, 82.2% and 86.6% respectively), while spirits, RTD and cider drinkers were more likely to drink weekly or less often (50.9%, 64.4% and 56.9% respectively). The difference in the rate of daily drinking in cask wine drinkers and bottled wine drinkers is striking, with 31.6% of cask wine drinkers drinking daily and only 7.9% of bottled wine drinkers drinking daily. RTD drinkers are the most likely to drink less than once a month and 30.2% of home-brew beer drinkers drink daily. Bottled wine drinkers were still drinking regularly, with the most popular response being once or twice a week. These patterns remained consistent when supplementary drinks were added in to the analysis.

Table 7: Drinking frequency disaggregated by favourite drink

	Every day	5-6 day per week	3-4 days per week	1-2 day per week	2-3 days per month	1 day per month	Less often	N
Regular Beer	12.5	14.1	21.9	26.9	13.6	5.6	5.5	3929.9
Mid-Strength Beer	15.6	12.8	18.9	24.6	12.9	6.0	9.2	1328.9
Light-Beer	13.5	7.4	11.8	21.3	14.2	11.2	20.6	1191.8
Home-Brew Beer	30.2	23.2	18.4	10.4	3.9	7.6	6.3	115.9
Cider	2.7	3.8	14.7	21.9	18.4	11.0	27.5	134.9
Cask Wine	31.6	24.0	17.7	13.3	6.0	2.6	4.8	889.5
Bottled Wine	7.9	12.9	19.1	23.2	15.4	7.9	13.6	6785.4
Fortified Wine	10.8	11.2	12.1	14.6	14.7	12.6	24.0	399.7
Spirits	7.3	6.7	11.5	23.7	19.0	10.8	20.9	2878.0
RTD	2.7	3.8	7.7	21.5	22.5	13.4	28.5	2139.2
Other	3.4	1.8	7.8	19.5	16.1	10.8	40.7	171.9

## Total alcohol consumed

The average total number of standard drinks consumed per person per day by favourite drink is shown in Table 8 with supplementary drinks added in Table 9. Regular and home brew beer drinkers drank on average the most amount of alcohol for the year (on average 2.68 and 2.67 standard drinks per day respectively). Mid-strength beer and cask wine drinkers also drank relatively high amounts of alcohol (2.05 and 1.93 standard drinks per day respectively). Those who selected fortified wine as their favourite drink (0.86 standard drinks) drank the least amount of alcohol in the year of the study.

**Table 8: Mean number of standard drinks consumed per person per day in the previous twelve months by favourite type of drink.**

Drink	Standard Drinks	95% CI	N
Regular Beer	2.68	(2.56-2.80)	3949.2
Mid-Strength Beer	2.05	(1.90-2.20)	1249.2
Light-Beer	1.20	(1.05-1.35)	981.3
Home-Brew Beer	2.67	(1.98-3.36)	107.2
Cider	1.71	(1.12-2.31)	146.0
Cask Wine	1.93	(1.75-2.11)	685.6
Bottled Wine	1.15	(1.10-1.20)	6024.5
Fortified Wine	0.86	(0.61-1.10)	249.5
Spirits	1.41	(1.32-1.51)	2720.3
RTD	1.26	(1.15-1.37)	2223.1
Other	0.84	(0.46-1.23)	140.4

When adding in supplementary drinks, there was a change in the pattern of alcohol consumption. As can be seen in Table 9, home brew drinkers still drank a relatively high amount, but cask wine drinkers became the second heaviest drinkers. Regular beer drinkers drank less when those who drank beer as a supplementary drink were included in the analyses. There were no longer any stand out favourite or supplemental drinks for low alcohol consumption, although light beer and bottled wine had the lowest overall consumption in this analysis (1.40 and 1.46 standard drinks per year respectively).

**Table 9: Mean number of standard drinks consumed per day in the previous twelve months by favourite and supplemental type of drink**

Drink	Standard Drinks	95% CI	N
Regular Beer	2.32	(2.24-2.39)	7501.5
Mid-Strength Beer	1.98	(1.88-2.08)	3533.2
Light-Beer	1.40	(1.31-1.49)	3065.8
Home-Brew Beer	2.65	(2.35-2.95)	738.3
Cider	2.10	(1.91-2.30)	1270.6
Cask Wine	2.25	(2.11-2.39)	2341.4
Bottled Wine	1.46	(1.41-1.50)	10764.6
Fortified Wine	1.67	(1.56-1.79)	2396.9
Spirits	1.73	(1.67-1.79)	9121.7
RTD	1.70	(1.62-1.78)	6532.7
Other	1.82	(1.54-2.10)	578.4

(Please note that respondents can select more than one drink for this item so respondents can be counted in the sample size for more than one group.)

## Change of preference

Respondents were given the opportunity to express whether or not they had recently changed their favourite drink. In order to illustrate how movement between drink types is working without the confounding factor of the current popularity of each type of drink, the ratio of old favourite drinks over the current choice is shown in Table 10. A number higher than 1 in the ratio of the prevalence of a drink as an old drink over its prevalence as a favourite drink overall indicates that the given drink was over-represented as a drink that drinkers moved away from, while a number higher than 1 in the ratio of new drink to all drinks indicates that the given drink was over-represented as a drink that drinkers moved towards.

**Table 10: Percentage of drinkers who change their drink changing from or to a new favourite drink over the overall popularity of that drink**

Drink Type	Ratio (old drink/ all drinks)	Ratio (new drink/ all drinks)	Weighted N
Regular Beer	1.08	1.00	267.4
Mid-Strength Beer	0.71	1.20	61.4
Light-Beer	0.56	0.81	43.4
Home-Brew Beer	1.72	0.60	12.6
Cider	3.12	3.21	26.8
Cask Wine	0.72	0.90	39.7
Bottled Wine	0.39	0.83	169.8
Fortified Wine	0.58	0.59	14.6
Spirits	1.53	1.29	278.2
RTD	2.45	1.13	332.4
Other	1.83	1.10	19.9

The largest movement has been away from cider, with high numbers also moving away from RTDs, home brew and spirits. The largest movement has been towards cider, spirits and mid strength beer. Cider was significantly overrepresented in both categories indicating that this is not a favourite drink for long and may be a phase. Some of this movement from or to certain drinks may be affected by age. Given the age of most mid strength drinkers is between 30 to 59 years, the popularity of this drink as a new drink is not surprising, nor is the move away from RTDs. This analysis should be interpreted with caution given the low Ns in some of the categories.



## Summary

Overall, the drink preference analysis from the 2010 NDSHS survey demonstrates that beverage choices vary as a function of age, gender, and household income, and to a lesser extent Indigeneity. It also demonstrated that certain beverage choices are more strongly associated with more regular drinking and higher levels of total consumption per person in the year of the study.

Regular strength beer was more popular among men and in people aged 20 to 50, and gained popularity as income rose. Light, mid-strength and home-brew beer were also more popular for men and in older groups, peaking in popularity for those over 70 and decreasing in popularity as neighbourhood affluence and income rose. Regular strength and home-brew beer drinkers consumed more regularly and at higher levels than those who selected other drinks, especially mid-strength and light beer.

Cask and bottled wine were more popular with female drinkers and both grew in popularity with age. Bottled wine was three times more popular with non-Indigenous than Indigenous populations. Cask wine decreased in popularity while bottled wine increased as neighbourhood status and household income increased. Nearly a third of cask wine drinkers drank daily while bottled wine drinkers were most likely to drink once or twice a week. When examining the favourite drink, only cask wine drinkers consumed nearly twice as much throughout the year as bottled wine drinkers but once supplementary drinks were included, this effect was reduced.


Spirits, Ready to Drink premixed spirits (RTDs), cider and fortified wine were all more popular for women than men. Fortified wine increased with popularity with age, while the others decreased, especially RTDs which are extremely popular with those under 20 and then rapidly drop in popularity from that point. RTDs were three times more popular in an Indigenous population than a non-Indigenous population. Spirits, RTDs and fortified wine all decreased in popularity as neighbourhood status increased. Fortified wine decreased in popularity as household income increased, while the popularity of spirits and RTDs decreased at the higher or lower levels of household income. Total alcohol consumption by those who drink these drinks is relatively low when compared to those who prefer beer or cask wine.

Overall, people who selected home-brew beer or cask wine drank more than those who selected other drinks, while people who selected fortified wine or light beer drank less often and less on average. The importance of differentiating between different types of beer (e.g. regular, mid and light), wine (fortified, bottle and cask) and spirits (bottled versus RTDs) in surveys and public policy has been highlighted by the differences in drinking patterns and demographics of those who drink cask and bottle wine, bottled spirits or RTDs and regular strength beer, home-brew and mid-strength or light beer.



## References

1. Alcoholic Liquor Duties (Definition of Cider) Order, House of Commons, No. 1914 Cong. Rec. (2010).
2. Australian Institute of Health and Welfare. (2011). 2010 National drug strategy household survey: Supplement Drug Statistic Series. Canberra: AIHW
3. Barefoot, J. C., M, G., Feaganes, J. R., McPherson, S., Williams, R. B., & Siegler, I. C. (2002). Alcoholic beverage preference, diet, and health habits in the UNC Alumni Heart Study. *The American Journal of Clinical Nutrition*, 76, 466-472.
4. Chikritzhs, T. N., Dietze, P. M., Allsop, S. J., Daube, M. M., Hall, W. D., & Kypri, K. (2009). The "alcopops" tax: heading in the right direction. *Medical Journal of Australia*, 190(6), 294-295.
5. Doran, C., & Digiusto, E. (2011). Using taxes to curb drinking: A report card on the Australian government's alcopops tax. *Drug and Alcohol Review*, 30, 677-680. Retrieved from doi:10.1111/j.1465-3362.2011.00309.x
6. Euromonitor International. (2011). Cider/Perry in Australia Retrieved 13/1/2011, from <http://www.euromonitor.com/cider-perry-in-australia/report>
7. Greenfield, T., & Rogers, J. D. (1999). Alcoholic beverage choice, risk perception and self-reported drunk driving: effects of measurement on risk analysis. *Addiction*, 94(11), 1735-1743.
8. Harris, W., Edwards, C., & Smith, A. (2005). Bottleshops and 'ready-to-drink' alcoholic beverages. *Health Promotion Journal of Australia: Official Journal of the Australian Association of Health*, 16(1), 32-36.
9. Jones, S. C., & Barrie, L. (2011). RTDs in Australia: Expensive designer drinks or cheap rocket fuel? *Drug and Alcohol Review*, 30, 4-11. doi: 10.1111/j.1465-3362.2010.00181.x
10. Klatsky, A., Armstrong, M. A., & Kipp, H. (1990). Correlates of alcoholic beverage preference: traits of persons who choose wine, liquor or beer. *British Journal of Addiction*, 85, 1279-1289.
11. McCann, S. E., Sempos, C., Freudenheim, J. L., Muti, P., Russell, M., Nochajski, T. H., . . . Trevisan, M. (2003). Alcoholic beverage preference and characteristics of drinkers and nondrinkers in western New York (United States). *Nutrition, Metabolism & Cardiovascular Diseases*, 13, 2-11.
12. Muller, S., Piontek, D., Pabst, A., Baumeister, S. E., & Kraus, L. (2010). Changes in alcohol consumption and beverage preference among adolescents after the introduction of the alcopops tax in Germany. *Addiction*, 105, 1250-1213.
13. Naimi, T. S., Brewer, R. D., Miller, J. W., Okoro, C., & Mehrotra, C. (2007). What Do Binge Drinkers Drink? Implications for alcohol control policy. *American Journal of Preventative Medicine*, 33(3), 188-193.
14. National Health and Medical Research Council. (2009). Australian guidelines to reduce health risks from drinking alcohol. Canberra: NHMRC.
15. Pedersen, E. R., Neighbours, C., & Larimer, M. E. (2010). Differential Alcohol Expectancies Based on Type of Alcoholic Beverage Consumed. *Journal of Studies on Alcohol and Drugs*, 71(6), 925-929.
16. Ramful, P., & Zhao, X. (2008). Individual Heterogeneity in Alcohol Consumption: The Case of Beer, Wine and Spirits in Australia\*. *Economic Record*, 84(265), 207-222.
17. Skov, S., Chikritzhs, T., Kypri, K., Miller, P., Hall, W., Daube, M. M., & Moodie, A. R. (2011). Is the "alcopops" tax working? Probably yes but there is a bigger picture. *Medical Journal of Australia*, 195(2), 84-86.

- 
18. Srivastava, P., & Zhao, X. (2010). What Do the Bingers Drink? Micro-Unit Evidence on Negative Externalities and Drinker Characteristics of Alcohol Consumption by Beverage Types. *Economic Papers*, 29(2), 229-250.
  19. Supporting Australian Wine. (2011). Submission to the Federal Government October 2011 Tax Forum: A response to recommendations of Australia's Future Tax System - the Henry Tax Review.
  20. Retrieved 20/01/2012, from [http://www.futuretax.gov.au/content/TaxForum/submissions/Supporting\\_Australian\\_Wine.pdf](http://www.futuretax.gov.au/content/TaxForum/submissions/Supporting_Australian_Wine.pdf)
  21. Theobald, H., Johansson, S. E., & Engfeldt, P. (2003). Influence of Different Types of Alcoholic Beverages on Self-Reported Health Status. *Alcohol and Alcoholism*, 38(6), 583-588.

**Foundation for  
Alcohol Research  
& Education**

Level 1  
40 Thesiger Court  
Deakin ACT 2600

PO Box 19  
Deakin West  
ACT 2600

[www.fare.org.au](http://www.fare.org.au)

ISBN: 978-0-9874003-1-4

**Centre for  
Alcohol Policy  
Research**

54-62 Gertrude Street  
Fitzroy VIC 3065

[www.capr.edu.au](http://www.capr.edu.au)